

WHAT IS CLAIMED IS:

1. A calcium tartrate composition comprising particles having a mean particle size less than about 30 μm .

2. The composition according to claim 1, wherein the mean particle size is less than about 25 μm .

3. The composition according to claim 1, wherein the mean particle size is less than about 20 μm .

4. The composition according to claim 1, wherein the mean particle size is less than about 18 μm .

5. The composition according to claim 1, wherein the mean particle size is less than about 15 μm .

6. The composition of claim 1, wherein less than 5% of particles have a particle size greater than about 40 μm .

7. The composition of claim 6, wherein less than 1% of particles have a particle size greater than about 40 μm .

8. The composition of claim 6, wherein less than 0.1% of particles have a particle size greater than about 40 μm .

9. A method for preparing a calcium tartrate composition comprising particles having a mean particle size less than about 30 μm , comprising the following steps:

submitting maleic acid to an enzymatic catalytic epoxidation thereby obtaining cis-epoxysuccinate,

submitting said cis-epoxysuccinate to the action of an epoxide hydrolase thereby producing L-tartaric acid;

precipitating said L-tartaric acid with CaCl_2 thereby obtaining calcium tartrate crystals; and

recovering the calcium tartrate crystals to obtain a calcium tartrate composition.

10. The method of claim 9, wherein said L-tartaric acid is precipitated by adding an equimolar amount of CaCl_2 .

11. The method of claim 9 further comprising drying and grinding said recovered calcium tartrate crystals.

12. A plaster composition comprising the composition of claim 1.
13. A powder comprising the composition of claim 1, wherein the powder is selected from the group consisting of cement, mortar, and concrete.
14. A method for preparing a calcium tartrate composition comprising
5 particles having a mean particle size less than about 18 μm , comprising the following steps:
submitting maleic acid to an enzymatic catalytic epoxidation thereby obtaining cis-epoxysuccinate,
submitting said cis-epoxysuccinate to the action of an epoxide hydrolase thereby
10 producing L-tartaric acid;
precipitating said L-tartaric acid with CaCl_2 thereby obtaining calcium tartrate crystals; and
recovering the calcium tartrate crystals to obtain a calcium tartrate composition.
15. The method of claim 14, wherein said L-tartaric acid is precipitated by adding an equimolar amount of CaCl_2 .
16. The method of claim 14 further comprising drying and grinding said recovered calcium tartrate crystals.
17. A plaster composition comprising the composition of claim 4.
18. A powder comprising the composition of claim 4, wherein the powder is
20 selected from the group consisting of cement, mortar, and concrete.